

ON A COLLECTION OF ODONATA FROM MANIPUR, INDIA¹

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The present note is based on a small collection of adult odonates brought back by Dr. R.P. Mukherjee and his party from the localities near Loktak lake, Moirang (Lat. 24° 25'N, Long. 93° 45'E), Ithai village (Lat. 23° 35'N, Long 81° 15'E), and Keibul Lamjao Wild Life Sanctuary during two trips to the areas in the months of May, 1974 and December, 1974 to February, 1975. Manipur valley is isolated from Assam, and it lies on the eastern fringe of the Indian Union, zoogeographically it lies in the Indo-chinese subregion. Annandale (1921, in Annandale *et al.*) described the ecology of Loktak lake as follows:

"The Loktak lake is little more than a large, deep swamp. In places the water is as much as 10 feet deep, but even in such spots it is blocked up almost to the surface with submerged vegetation, while a very large part of this area is covered with floating islands formed of living and decayed plants. The bottom is composed of evil smelling soft mud containing much rotten vegetable matter. In the dry weather the lake is normally about 8 miles long by 5 miles broad, but its extent probably varies greatly in different years."

He also reported the existence of Libellulid and Agrionid larvae in the lake. Although Fraser (1933, 1934, 1936) referred to species of odonata from some localities of Assam (previously Manipur was in Assam), there is no mention of any locality in Manipur, from where the only odonate specifically recorded is *Ischnura annandalei* by Bhasin (1953).

The collection though small quantitatively (with only 29 specimens) is rich in variety, containing 11 species spread over 10 genera of 3 families and two suborders.

¹ Accepted for publication: Sept. 6, 1975

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Systematics

Suborder : Zygoptera
 Family : Coenagrionidae
 Genus : *Ceriatrion* Selys.

Ceriatrion coromandelianum (Fabr. 1798).

Material examined: 1 ♀, 3 ♂♂, Moirang, 25. 5. 1974. Coll. R.P.M., 1 ♀, 2 ♂♂, Moirang, 28. 5. 1974. Coll. R.P.M.

It is a common Indian odonata distributed, "Throughout India, Ceylon, Burma, Malayasia, Indochina and South China" (Fraser, 1933).

The specimens differ from the description given by Fraser (1933) and from specimens of Calcutta and its metropolis as well as Maharashtra and Assam examined by me, in having reddish mark on the dorsum of the abdominal segments 1 to 4. Further studies may help in the erection of a new subspecies for the Manipur population and which may act as an additional proof for the Indo-chinese connection of the ancestors of Indian species.

Ceriatrion olivaceum Laidlaw, 1914.

Material examined: 1 ♀, Moirang, 25. 5. 1974. Coll. R.P.M.

The species was reported earlier from Assam and other localities of India. The specimen shows similarity with the Western Ghat specimens described by Fraser (1933).

Genus : *Ischnura* Charpentier.

Ischnura mildredae Fraser, 1927.

Material examined: 1 ♂, Keibul, 26. 1. 1975, 2 ♂♂ (7 to 10 abdominal segments lost in one specimen), Keibul, 6. 2. 1975, 1 ♀, Keibul, 7. 2. 1975. Coll. S. Chaudhuri.

The species was so far known only from Upper Burma. This is the first record of its occurrence in the Indian Union.

Genus : *Onychargia* Selys.

Onychargia atrocyana Selys, 1865.

Material examined: 1 ♀, Moirang, 25. 5. 1974. Coll. R.P.M.

Known from Assam and all other parts of India.

Suborder : Anisoptera
 Family : Macrodiplactidae
 Genus : *Urothemis* Brauer

Urothemis signata signata (Rambur, 1842).

Material examined: 2 ♀♀, 3 ♂♂, Moirang, 29. 5. 1974, Coll. R.P.M.

It is common Macrodiplactid dragonfly of India. It had been reported from several localities in the country.

Family : Libellulidae
 Genus : *Crocothemis* Brauer

Crocothemis servilia servilia (Drury)

Material examined: 1 ♀, 1 ♂, Ithai village, 29. 5. 1974, Coll. R.P.M. and 1 ♀, Keibul, 7. 2. 1975, Coll. S. Chaudhuri.

It is a very common dragonfly, visible almost all parts of India.

Genus : *Brachythemis* Brauer.

Brachythemis contaminata (Fabricius, 1798).

Material examined: 1 ♀, Moirang, 29. 5. 1974, Coll. R.P.M.

A common species, occurring in almost every part of India.

Genus : *Rhodothemis* Ris.

Rhodothemis rufa (Rambur, 1842)

Material examined: 1 ♂, 2 ♀♀, Moirang, 29. 5. 1974, Coll. R.P.M.

A common libellulid dragonfly of India, occurring from the west coast to other parts of India.

Genus : *Diplacodes* Kirby

Diplacodes trivialis (Rambur, 1842)

Material examined: 1 ♀, Keibul, 30. 12. 1974, 1 ♀, Keibul, 7. 2. 1975, Coll. S. Chaudhuri.

A common libellulid dragonfly of India.

Genus : *Rhyothemis* Hagen

Rhyothemis variegata variegata (Linn. 1763).

Material examined: 1 ♀ (damaged), Ithai village, 29. 5. 1974, Coll. R.P.M.

A common odonata of India.

Genus : *Tholymis* Hagen

Tholymis tillarga (Fabr. 1798).

Material examined: 1 ♂ (damaged), Ithai village, 29. 5. 1974, Coll. R.P.M.

A common libellulid dragonfly of India.

ACKNOWLEDGEMENTS

The author is thankful to the Director, Zoological Survey of India for facilities, to Dr. K.K. Tiwari, of the same department and to Dr. D.N. RayChaudhuri, Dept. of Zoology, Calcutta University, for guidance, to Dr. R.P. Mukherjee and Shri S. Chaudhuri for the collection and Shri S.M. Ali of Zoological Survey of India for encouragement.

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